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CREDIT CONTROL IN SELECTED RETAIL FARM SUPPLY COOPERATIVES AREA IV *(Kansas, Nebraska, Missouri, Iowa, Illinois, and Southern Wisconsin)*

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U. S. DEPARTMENT OF AGRICULTURE
FARMER COOPERATIVE SERVICE

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The Farmer Cooperative Service conducts research studies and service activities of assistance to farmers in connection with cooperatives engaged in marketing farm products, purchasing farm supplies, and supplying business services. The work of the Service relates to problems of management, organization, policies, financing, merchandising, product quality, costs, efficiency, and membership.

The Service publishes the results of such studies; confers and advises with officials of farmer cooperatives; and works with educational agencies, cooperatives, and others in the dissemination of information relating to cooperative principles and practices.

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SUMMARY AND SUGGESTIONS

This is the fourth in a series of studies on credit control in farm supply cooperatives. Thirty local cooperatives in Kansas, Nebraska, Missouri, Iowa, Illinois, and southern Wisconsin were included in this study.

Criteria for selecting these associations were: (1) They were better than average in the control of credit, (2) had more than one-third of sales made on credit, and (3) carried a diversified line of farm supplies. Data for this report were obtained through personal interviews with the local managers. For purposes of analysis this area was divided into two sections; a cash crop and a diversified farming section.

Principal Findings

* The associations used in this study did a better job of controlling credit than the average cooperative in this area. Cooperatives in the cash crop section of this area had 10 days' sales in year-end accounts receivable compared to 15 days for 50 petroleum cooperatives in Kansas in 1957. Cooperatives in the diversified section of this area had 12 days' sales in year-end accounts receivable compared to 26 days for 50 farm supply cooperatives in Iowa and 17 days for 101 farm supply cooperatives in Illinois.

* Supply sales ranged from approximately $95,000 to $2.4 million per association studied. Sales in the cash crop area averaged $349,000 while those in the diversified area were nearly three times as great, or $1 million per association. Petroleum was the major commodity--amounting to 66 percent of sales in the cash crop section and 49 percent of sales in the diversified area.

* Supply sales of these cooperatives increased 39 percent from 1953 to 1957, but credit sales increased 81 percent and accounts receivable increased 71 percent during the same period. Accounts receivable, however, represented 8 percent of assets in both 1957 and 1953. Furthermore, accounts receivable were more current in 1957 than in 1953. Fifty-four percent of them were less than 30 days in 1957 compared with 45 percent in 1953.

* Accounts receivable were much lower at the fiscal year-end than during the rest of the year. At the close of the 1957 fiscal year, accounts receivable were only 57 percent of the monthly average for the year; days' sales in accounts receivable amounted to only 11 compared with 21 days based on average accounts; and days' credit sales in year-end accounts receivable amounted to 22 compared with 44 days when monthly average accounts were used.

* Sales and accounts receivable varied considerably during the year. Sales were lowest in February and highest in May. Accounts receivable were lowest in December and highest in June and July.

* The principal cost items in granting credit were: interest, amounting to 37 percent of the cost; bookkeeping, 30 percent; collecting, 20 percent; extending credit, 7 percent; and bad debt losses, 6 percent.

* Credit cost $1.74 for each $100 of credit sales and amounted to 16 percent of the monthly average amount in accounts receivable during 1957. Credit costs were nearly one-third as large as net margins.

* More than 90 percent of the patrons used credit at some time during 1957. Thirty-one percent of the patrons had accounts outstanding at the end of the 1957 fiscal year.

* The 10 largest account holders in each association accounted for an average of only 4 percent of the associations' purchases, but were responsible for 28 percent of the total accounts receivable.

* All associations had some form of credit policy although these policies usually were not strictly adhered to. Four associations reported cash policies yet these associations made from 39 to 53 percent of their sales on credit.

* Credit investigation was conducted by the local manager in the smaller associations. Larger associations usually relied on credit bureaus to obtain the credit rating of prospective patrons.

* Accounts were collected by various methods: (1) Ordinarily the cooperative sent a monthly statement to the account holder, although this usually was not intended as a collection mechanism; (2) a personal or form letter was sent which was intended to obtain payment, and usually was successful; (3) if the first two methods failed, the manager made a personal visit to collect the account; and (4) if a personal visit by the manager failed, accounts were given to collection agencies, lawyers, or justices of the peace for collection.

* Though all these associations had some form of cash or credit policy none of them rigidly enforced their policies. Associations with policies of "payment due within 30 days" or "payment due the 10th of the following month" should not have credit extended for more than 20 or 25 days, yet their accounts averaged 44 days in age.

* Cash discounts or charges for credit were not used extensively in these associations. This may have been a major reason why credit was not kept current. Credit is a costly service and, therefore, a charge for it is justifiable. Charges for credit may be difficult to administer and they may antagonize certain patrons, but patrons should not object if they understand the reasons for such policies.

Suggestions

Finally, the following suggestions should be helpful in improving credit operations among farm supply cooperatives:

1. Establish realistic policies by action of the board of directors.

Obtain approval of the policy by the members, minimize exceptions to it, and expect the manager to enforce rather than formulate the credit policy.

2. Adopt specific procedures for extending credit.

Select new applicants carefully, discuss the policy and terms for mutual understanding, have employees sell the credit policy along with the commodities, and establish regular board review of practices and individual accounts.

3. Establish sound collection practices and follow-through.

Send monthly statements to patrons with accounts; make special efforts to obtain payment on the date agreed; and let account holder know that the association handles credit on a businesslike basis. Protect the association by using notes on slow accounts, and use collection agencies as a last resort.

4. Recognize the costs of credit and allocate them to patrons on an equitable basis.

Charge for credit or grant cash discounts. If neither of these methods are feasible, allocate the cost of credit by paying patronage refunds at different rates on the basis of cash and credit purchases, or discontinue credit sales to patrons with overdue accounts.

5. Encourage farmers to use existing credit agencies. Point out that credit from these agencies is cheaper than it is at the cooperative. Suggest that patrons obtain a line-of-credit which gives them a loan commitment that can be drawn upon periodically as needed.

6. Encourage the use of advance deposits from patrons and pay interest on them. This practice is especially helpful in collections for farm deliveries of petroleum products and for feed or other items picked up at warehouses by the patrons' hired men.

7. Keep accounts current. Reduce accounts two or four times a year rather than permitting them to build up for a full year.

CREDIT CONTROL IN SELECTED RETAIL FARM SUPPLY COOPERATIVES

Area IV - Kansas, Nebraska, Missouri, Iowa, Illinois, and Southern Wisconsin

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Credit has long been a problem in farm supply cooperatives, but it has become more acute in recent years. Several factors which may account for the increasing use of credit at farm supply cooperatives are: (1) Technological advances cause farmers to use more commercial feeds, fertilizers, pesticides, and machinery; (2) farm size is increasing; (3) farm income has not kept pace with farm expenses; (4) family living expenses are higher; and (5) many distributors of farm supplies extend credit as a part of their service.

A 5-year comparison of the associations used in this study shows that credit is becoming more of a problem and indicates a need for increased efforts for its control. From 1953 to 1957, total sales increased 39 percent while credit sales increased 81 percent (figure 1). Credit sales represented 46 percent of total retail sales in 1953 and 56 percent of the total in 1957.

With this increasing demand for credit, directors and managers desire information on ways to minimize credit sales and control accounts receivable. The purpose of this study, therefore, was to determine: (1) Trends in the use of credit by local farm supply cooperatives, and (2) practical policies and procedures for controlling credit.

METHOD OF STUDY

This study was the fourth in a series covering credit operations of retail farm supply cooperatives in different sections of the United States. This study included 30 farm supply cooperatives located in Kansas, Nebraska, Missouri, Iowa, Illinois, and Southern Wisconsin.

Criteria for selecting these associations were: (1) Better than average in the control of credit; (2) more than one-third of sales made on credit; and (3) a diversified line of farm supplies handled.

Supply sales ranged from $94,743 to $2,393,142 per association studied. Sales in the cash crop area averaged $348,812 while those in the diversified area were nearly three times as great, or $1,010,988 per association. Petroleum was the major commodity--amounting to 66 percent of sales in the cash crop section and 49 percent of sales in the diversified area.

Farmer Cooperative Service personnel interviewed representatives of each association to obtain information on credit policies and practices. Information in this report is based on credit operating data of the associations studied and on views and observations of their managers in administering credit.

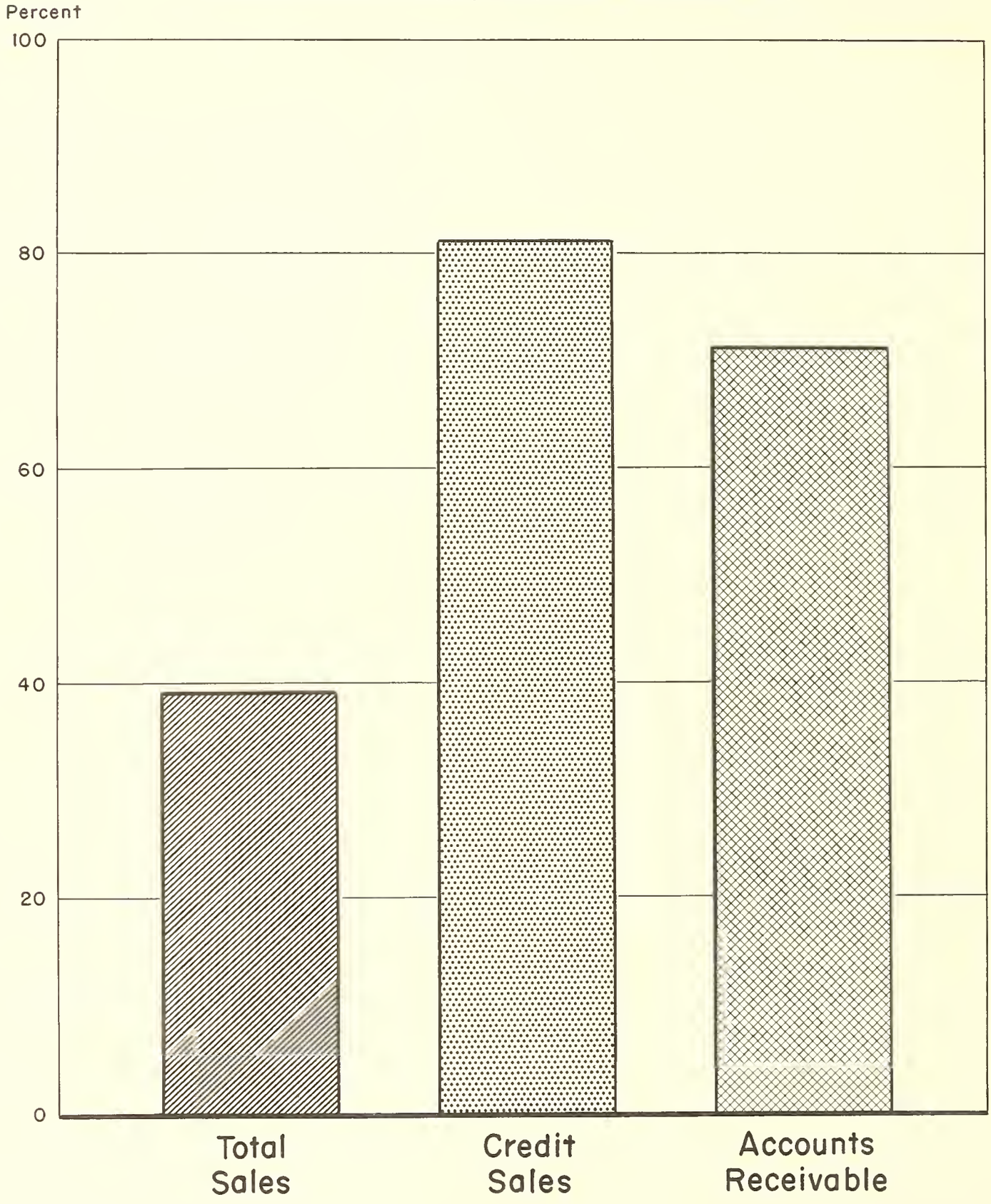
Four principal phases were analyzed: (1) Credit policies, (2) credit extension practices, (3) credit collection practices, and (4) analysis of credit operating data.

Note: Appreciation is expressed to officials of the farmer cooperatives who provided information on their credit operations, and to J. Warren Mather, Chief, Farm Supplies Branch, Farmer Cooperative Service, for substantial assistance in planning and developing this study.

Figure 1

PERCENT INCREASE IN TOTAL SALES, CREDIT SALES AND ACCOUNTS RECEIVABLE, 1953-57

(30 Local Farm Supply Cooperatives in Midwest)



This area was divided into 2 sections: A cash crop section which included 16 selected cooperatives in Kansas and Nebraska, and a diversified farming section which included 14 selected cooperatives in Missouri, Iowa, Illinois, and southern Wisconsin.

The cooperatives used in this study did a better job of controlling credit than other cooperatives in this area. This was evidenced by the fact that 16 associations in the cash crop section had 10 days' sales in year-end accounts receivable compared to 15 days for 50 petroleum associations in Kansas. Fourteen associations in the diversified farming section had 12 days' sales in year-end accounts compared to 26 days for 50 farm supply cooperatives in Iowa, and 17 days for 101 farm supply cooperatives in Illinois (figure 2).

CREDIT POLICIES

A specific credit policy is a necessary part of any successful credit business. The terms of this policy should be thoroughly understood and adhered to by the patron, and rigidly enforced by the cooperative.

The policies used are shown in the following tabulation:

Policy	Number of cooperatives
Cash	4
Accounts due 30 days after purchase	9
Accounts due 10th of the month following purchase	4
Accounts due 60 days after purchase	7
Varying terms depending on commodity	2
Credit terms to suit the individual	4
Total	30

Policy Enforcement

All the associations in this area had some form of cash or credit policy. The degree to which these policies were adhered to varied considerably; however, none of the associations stayed completely within the stated policy.

The 4 associations which had cash policies made from 39 to 53 percent of their sales on credit. This credit was called "convenience or accommodation credit." If this much credit is to be extended, such associations might be in a better position if they were to state a specific credit policy rather than operate under the illusion that they are on a cash basis.

Shorter term credit policies generally were not strictly adhered to. Nine associations with 30-day credit policies had credit outstanding for an average of 46 days. If these policies had been rigidly followed, accounts should have been extended for only about 20 days.

Four associations had policies requiring payment the 10th of the following month. Credit would be extended for an average of about 25 days if this policy were enforced; however, credit in these associations was outstanding for an average of 42 days.

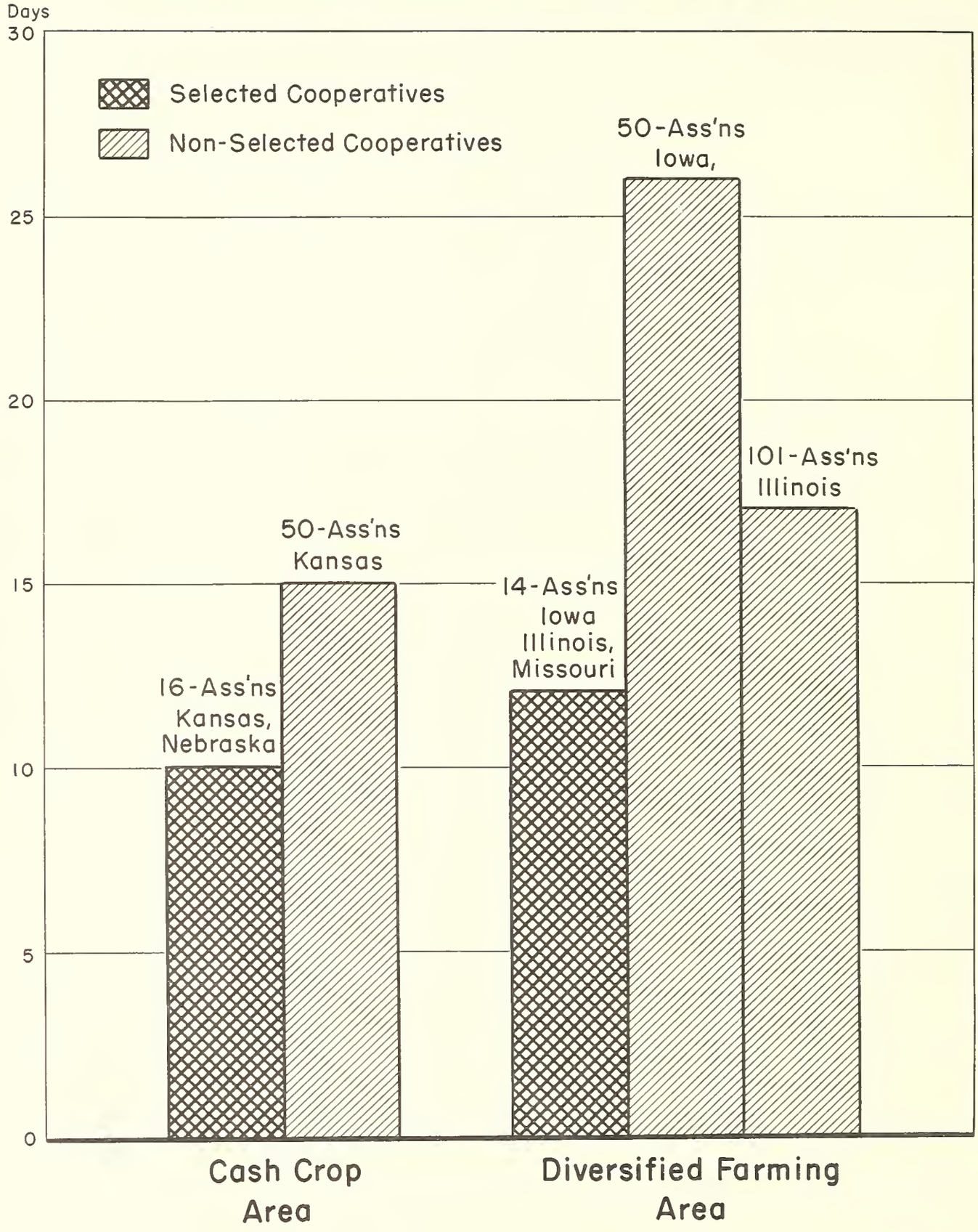
Associations with 60 or 90-day credit policies and those which extended credit to suit the individual had accounts averaging 43 days in age.

Credit was extended for about the same length of time in associations with 30-day policies as in those with longer policies.

The fact that the shorter term policies were not adhered to indicates either that insufficient effort was made to enforce these policies, or there was little incentive to encourage the farmer to keep accounts current.

Figure 2

DAYS' SALES IN ACCOUNTS RECEIVABLE IN LOCAL FARM SUPPLY COOPERATIVES IN MIDWEST



Most associations did not give discounts for early payment nor did they charge interest for late payment. The result was a great many late payments and very few early payments. Managers spent considerable time trying to keep accounts current, but found that with no monetary incentives for prompt payment their efforts were not very successful.

A discount for payment within 10 days, or by the end of the month, might be a good way of keeping credit current. The use of a discount may be more effective than an interest charge after a certain period of time, because it is often difficult to get farmers to see the justice of adding a charge to the original sale price, or to collect the interest charge once it is added.

Even when using a discount system, interest should be charged after 30 days.

Policy Announcement

Policies often are not adhered to because the patron is never really certain as to what the terms of the policy are. If the patron is to abide by the policy, he must have a thorough understanding of it.

All associations studied indicated that they were supposed to orally inform patrons of the credit policy at the time credit was extended. Several managers, however, said that often the oral explanation of the policy was completely omitted or inadequately covered.

In addition to orally informing patrons of the policy at the time of extension, about half of the associations discussed their credit policies at annual meetings. Eight associations sent written statements to the patrons informing them of the policy, and 3 published the policy periodically in a newsletter. One association said it did not advertise its policy because fewer people would use credit if they did not know about it.

Changes in Credit Control Efforts

Sixteen associations adopted specific credit policies or strengthened existing policies during the last 5 years in an effort to hold credit problems to a minimum. In spite of this, however, credit problems in recent years have not decreased. The proportion of sales made on credit in these associations 5 years ago was 46 percent compared to 56 percent in 1957. The average age of accounts receivable was nearly the same in 1957 as in 1953. This indicates that it is not sufficient to merely adopt a policy, but the policy must be enforced.

To keep credit sales at a minimum, several associations gave cash discounts on certain items or charged interest after a period of time. During the last 5 years two associations attempted to operate on a cash basis in an effort to reduce credit sales. Several cooperatives tried explaining the policy and the cost of handling credit as a means of reducing credit sales. However, most associations made little or no effort in recent years to reduce credit sales.

None of the association managers thought it would be wise to relax their credit policies. Most managers expected that they could gain some business by doing this, but felt that extra business gained in this manner would be very difficult to collect.

Since the cost of handling credit amounted to 7 percent of the operating cost of a business and reduced net margins by one-fourth to one-third, it seems reasonable that a co-op could adopt a cash policy and lose a part of its volume without reducing net margins. This seems even more likely in view of the fact that most managers expected that most patrons who quit buying at the co-op because it adopted the cash policy would return to the co-op after a few months.

CREDIT EXTENSION PRACTICES

How much credit can the co-op extend? To whom should credit be extended? How can the manager evaluate the credit rating of a prospective credit patron? How can the co-op be certain that the patron understands and will live up to the credit agreement?

These and many other questions should be answered before credit is extended. Too often credit is granted merely to complete a sale without considering the costs involved in extending and collecting it. Should a $100 account become uncollectible, more than $5,000 of sales at a 2 percent net margin would be required to compensate for the loss of it.

Henning and Laubis[1] of Ohio found that the two major reasons farmers used credit at cooperatives were: First, they were unable to obtain credit elsewhere; second, credit was easy to get at the co-op. This indicates that farmer cooperatives are extending a large amount of unsound credit, and also indicates a need for more thorough checking of the credit rating of the prospective credit patrons before granting credit.

It is, therefore, extremely important to know the credit rating of a patron before credit is extended, and that the terms of the credit agreement are understood by the patron.

Application For Credit

Before credit is extended, complete information should be secured on the credit rating of the prospective credit patron.

In only 10 associations was a formal credit application required. This practice was used mostly in the larger associations which also relied to a large extent on credit bureaus for credit information about patrons.

In 20 associations personal acquaintance of the manager with the patron was the basis on which credit was extended. The managers of these cooperatives--often the smaller ones and in small communities--believed they were quite capable of evaluating the patron's credit rating. These managers found that local banks, other retail dealers in the community, and landlords or former landlords were good sources of credit information.

Opening the Account

"An account properly opened is half collected," is an old saying among credit men, and one which still holds true. The most important part of opening the account is selling the patron on the terms of the credit. This must be accomplished in a tactful manner, but should leave no doubt as to the length of the time credit can be extended or the type of action to be taken if the credit period is exceeded.

All but two associations indicated that they had a definite agreement with the patron on the credit terms at the time credit was extended. This was primarily accomplished through an oral discussion with the patron. Five associations required the patron's signature on a statement of credit terms to insure that the terms were understood.

Selling Approach

Asking for cash is more likely to induce cash payment than asking the patron if he would like to "charge it." One manager said he frequently saw a patron reach for his checkbook only to leave it in his pocket when the salesman asked if he would like to "charge it."

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[1] Henning, S. F., and Laubis, R. E. Practices Followed by Ohio Farm Supply Cooperatives in Extending Open Account Credit to Farmers. Mimeograph Bul. No. AE 285, Ohio Agr. Exp. Sta., Wooster, Ohio.

In 22 associations employees were instructed to ask for cash when making a sale; however, much of the time employees did not ask for cash because the patron was not in the habit of paying cash. Eight associations did not suggest the method of payment when making a sale.

CREDIT COLLECTION PRACTICES

A good collection program is an essential part of a successful credit operation. The collection program requires continuous effort if accounts are to remain current and patrons are to be treated alike.

The cooperatives in this study should devote more effort to collecting accounts. This is indicated by the fact that nearly half the accounts were past due. According to managers and directors in Ohio,[2] one of the major reasons farmers use credit at the cooperatives is because they do not push credit collections.

Responsibility for Collecting Accounts

Managers were solely responsible for collecting accounts receivable in about half the associations. In the other half managers held salesmen responsible for the credit they extended and required them to collect it.

In most associations other employees were not financially responsible for the credit they extended; however, in those associations which required financial responsibility on the part of the salesmen, this requirement was considered helpful in controlling credit.

Employees held financially responsible for the credit they extended were not as likely to extend credit to risky patrons as employees who were not. These employees were also inclined to make a strong effort to collect the accounts they had extended. In most associations employees did not object to being financially responsible for credit they extended.

In seven associations employees were financially responsible for the credit which they extended. Usually such employees were required to pay for only those accounts uncollectible at the year-end. However, in two associations any account over 30 days' old at the end of the month was charged against the salesman who extended the credit. This resulted in some employees spending one-fourth to one-half of their time collecting accounts. They were successful in obtaining payment as these associations had 95 to 98 percent of their accounts under 30 days' old, but it is doubtful whether they were justified in spending this much time to keep accounts current.

Written Notices

Monthly statements should be the only credit collection mechanism needed. A monthly statement informs the patron that he has a specific amount due on a certain day. Since the patron agreed to pay the account on or before this date when he obtained the credit, receipt of the statement should result in prompt payment and a current account.

In associations with 30-day or month-end credit policies, any account on the monthly statement should be due on receipt of the statement if accounts are to be kept within the specified credit period.

All but three associations sent monthly statements to account holders. Most managers said such statements were merely reminders of the amount of their accounts and were not requests for payment. The fact that monthly statements were not intended as a collection mechanism indicates that the co-op did not expect all patrons to keep their accounts current.

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[2] Henning, S. F., and Laubis, R. E. Practices Followed by Ohio Farm Supply Cooperatives in Extending Open Account Credit to Farmers. Mimeograph Bul. No. AE 285, Ohio Agr. Exp. Sta., Wooster, Ohio.

Managers generally left the payment date to the patrons' discretion or sent letters or made personal contacts if no payment was received for a considerable period of time.

Managers reported that some patrons resented the use of monthly statements, saying that the cooperative questioned their personal integrity; however, for the most part the statements were well received. Though monthly statements resulted in few payments, they were considered helpful in that they reminded the patron that he did have an unpaid account.

Personal or form letters were used by nearly all the associations to collect overdue accounts. These letters were quite effective in obtaining payments; however, many patrons did not pay until they received such letters.

Personal Contacts

Nearly all associations, 25 out of 30, made personal contacts to collect accounts. These contacts were mostly limited to the year-end. Two associations, however, spent a considerable amount of time each month in making personal visits for this purpose; but it is questionable whether the collections justified the time spent.

Personal visits were very effective in collecting accounts. They should be used when accounts can not be collected through the normal procedure. The costs involved in handling an account in this way, however, usually are quite high. Usually such accounts are more than 6 months' old. This means that these patrons have obtained at least half a year's free interest. In addition, considerable time and money were spent on these individuals in sending statements and letters, and in posting and aging these accounts. Aging the accounts is the practice of placing accounts receivable into specific age groups. It seems that an account which must be collected by personal contact is not likely to be a profitable account.

Securing Accounts with Notes

Notes should be of value in securing certain older or doubtful accounts. Nine associations used notes occasionally. They were used primarily to collect interest on older accounts, or to secure certain accounts until the sale of some specific commodity.

These notes usually had interest rates of from 6 to 8 percent per year, and their maturity dates varied from 6 months to 1 year. Eight of the associations held the notes and collected interest. In associations which had notes discounted, the banks collected the interest as a handling charge.

The dollar value of the accounts converted to notes ranged from $600 to $15,000 per association. Less than 1 percent of the accounts were converted to notes. Notes were well accepted wherever they were used. Most of the notes were not secured with a chattel mortgage, and therefore managers thought that notes were not of much greater value than the accounts they secured.

Applying Marketing Proceeds to Unpaid Accounts

Marketing operations should be helpful in controlling accounts receivable; however, those associations with marketing services had as many accounts receivable as associations which did not market products. Their accounts also were no more current than accounts in associations which did not have marketing operations.

Marketing proceeds were used as payment of accounts in six associations. This practice was considered very helpful in controlling their accounts. Three cooperatives automatically deducted any accounts receivable before paying for any produce marketed. Three others deducted accounts from marketing proceeds only if the accounts were not current, or if the patron requested that the amount of the account be withheld from the proceeds.

Applying patronage refunds to unpaid accounts was said to be helpful in closing small accounts, but was rather ineffective with the problem accounts which were usually quite large and quite old. With these accounts the refund amounted to a small proportion of the account owed.

Patronage refunds and stock dividends were applied on unpaid accounts in 21 of the 30 associations in this study. Half of the associations applied these payments to unpaid accounts automatically; the other half did it only on very doubtful accounts or when requested to do so by the patron.

Use of Collection Agencies

About half the associations used collection agencies. The dollar value of the accounts turned over to them for collection ranged from $25 to $4,000. Usually only accounts difficult to collect were given to these agencies; however, some associations turned over any accounts they could not collect in the normal manner because they could not afford the time to make personal visits to the account holders. The co-ops realized from 0 to 75 percent of the accounts given to these agencies for collection, with the average about 50 percent. The collection agencies usually took from one-fourth to one-third of the amount collected as their fee.

Eleven associations gave some accounts to attorneys to be collected. The attorney usually just sent a letter to the patron and this was normally sufficient. Several managers said they obtained payment 70 to 80 percent of the time with this procedure.

Four associations gave accounts to a justice of peace for collection. It was difficult to get such a person to make a collection, but when he made the effort he usually received payment.

OTHER CREDIT CONTROL PRACTICES

Certain factors will affect both the extension and collection of credit. Some of these are: (1) The board's review of credit practices; (2) the use of advance deposits; and (3) the effect of various commodities on credit.

Review of Practices

A review of the association's credit practices by the board should help controlling credit. In 27 associations the board reviewed the accounts receivable and the current credit practices used.

Nineteen reviewed the credit practices each month, 2 did this bimonthly, 3 did this every 3 to 6 months, and 3 made such reviews once a year. Fourteen managers indicated the board's review helped control credit because it made the board aware of the way credit was administered; in turn this tended to keep the manager "on his toes."

The review by the board considered the size of accounts, probable credit limits, time for starting collection procedures, comparison of accounts with the preceding year's, and the status of patron income prospects.

In reviewing credit practices, the board also usually reviewed the outstanding accounts. These accounts were aged for the board's review by all but four associations. The process is usually performed each month. The following age breakdown is typical: The most current accounts are grouped from 0 to 30 days. Less current accounts are placed in groups of 30 to 60 days, 60 to 90 days, 90 to 180 days, 180 days to 1 year, and over 1 year.

In only 12 associations had their auditors, at some time within the last 5 years, made recommendations concerning the use and control of credit. Four auditors suggested to local associations that they operate on a cash basis, two said locals should enforce their credit policy, one suggested the local adopt a specific policy, three stated accounts should be kept more current, and three indicated that the handling of credit should be improved, but did not suggest how this might be accomplished.

Advance Deposits

Advance deposits can be used as a means of paying cash for farm deliveries when the farmer is not available at the time of delivery, or when purchases at the co-op are made by the hired help or children. Advance deposits, however, were not used to a great extent in these associations.

Twelve associations encouraged patrons to make advance deposits for anticipated purchases, but only one used this procedure extensively. It attempted to have all anticipated purchases for the month paid at the beginning of the month.

Only three associations paid interest on advance deposits. Those associations which did not pay interest said very few patrons made advance deposits. If cooperatives expect farmers to use advance deposits or prepayments to any large extent, they must pay interest on them.

Eighteen associations did not advocate prepayments for merchandise. Reasons cited were: (1) They would involve too much accounting; (2) the co-op could not afford to pay interest and without interest the farmer wouldn't use them; and (3) farmers did not have funds for making advance deposits.

Commodity Effect on Credit

Eighteen managers thought that petroleum caused more credit problems than any other commodity because: (1) Farmers frequently are not available at the time of delivery; (2) farmers find it more difficult to pay for a product that has been consumed; (3) other companies extend credit on petroleum for long periods of time.

Fertilizer and seed were cited by three associations as the primary credit problem because purchases were large and came at the time of year when incomes were quite low.

Nine associations indicated there was essentially no difference in the credit problems involved in the various commodities.

ANALYSIS OF CREDIT DATA

Total retail sales and credit sales of the associations studied increased during the previous 5 years. This increase had added to the problem of controlling accounts receivable. As more credit is extended, more capital, labor, and materials are required to handle accounts receivable.

Sales Volume and Supplies Sold

Supply sales of the associations contacted in 1957 ranged from $94,743 to $2,393,142 and averaged $632,602 (table 1). As mentioned, associations were divided into two classes: a cash crop group and a diversified farming group. The average sales in the cash crop section were about one-third as great as in the diversified section, $348,812 compared with $1,010,988.

The major commodity handled by cooperatives in both sections was petroleum; however, in the cash crop section it amounted to 66 percent of total sales while in the

TABLE 1.--Supply volume and proportion of supplies in selected commodities, 30 local farm supply cooperatives, 1957

Association number	Total supply volume	Proportion of sales in selected commodities								
		Petroleum	Tires batteries and accessories	Feed	Seed	Fertilizer	Building supplies and farm machinery	Paint and chemicals	Hardware	Miscellaneous
Cash crop area						*Percent*				
1	$94,743	61	-	12	2	5	-	-	-	20
2	615,349	93	7	-	-	-	-	-	-	-
3	810,908	42	12	16	3	14	-	-	-	13
4	628,254	44	8	31	5	12	-	-	-	-
5	116,802	71	15	-	-	-	-	-	-	14
6	136,165	77	-	7	2	3	-	-	-	11
7	295,896	57	4	3	-	24	-	-	10	2
8	324,548	44	6	22	-	1	18	1	7	1
9	325,013	74	7	-	-	10	-	1	-	8
10	149,365	57	11	14	-	-	1	-	-	17
11	223,516	88	7	-	-	-	-	2	-	3
12	168,221	94	2	-	-	-	-	-	-	4
13	613,596	66	5	-	-	-	-	1	-	28
14	108,553	69	6	8	-	10	-	1	-	6
15	517,497	41	3	30	-	-	6	-	19	1
16	452,581	75	7	-	-	1	-	1	6	10
Average[1]	348,812	66	7	16	3	9	8	1	11	10
Average[2]	348,812	66	6	9	1	5	1	([3])	3	9
Diversified farming area										
17	$324,292	48	3	37	1	7	-	1	-	3
18	856,489	92	([1])	-	-	6	-	1	-	1
19	1,353,725	32	-	13	10	9	13	-	-	23
20	1,412,828	76	([1])	-	4	15	-	4	-	1
21	729,498	86	([1])	-	-	6	-	5	-	3
22	630,814	76	([1])	-	3	14	-	6	-	1
23	2,393,142	41	-	51	-	8	-	-	-	-
24	793,480	64	-	13	-	23	-	-	-	-
25	890,270	58	-	29	-	13	-	-	-	-
26	806,861	51	2	11	2	26	5	2	-	1
27	[4] 885,092	-	-	-	-	-	-	-	-	-
28	[4] 794,561	-	-	69	7	22	-	-	-	2
29	873,056	1	-	58	9	19	3	2	6	2
30	1,067,403	-	-	56	9	15	7	1	1	11
Average[1]	1,010,988	57	2	34	5	14	7	3	4	5
Average[2]	1,010,988	52	([1])	22	3	14	2	2	1	4
Overall average[1]	632,602	62	7	24	5	11	8	2	8	8
Overall average[2]	632,602	60	4	15	2	8	2	1	2	6

[1] Average of only the associations handling this commodity.
[2] Average of all associations.
[3] Less than 0.5 percent.
[4] Excluded from average because includes some marketing.

diversified section it amounted to only 52 percent. Tires, batteries and accessories amounted to 6 percent of sales in the cash crop area, but they were less than 1 percent in the diversified area. Feed amounted to only 9 percent in the cash crop area contrasted with 22 percent in the diversified area.

Volume of Credit Business

Year-end accounts receivable in 1957 amounted to about $29,500 per association. They were equivalent to 8 percent of total assets (table 2). Eleven days sales were tied up in accounts receivable at the end of 1957.

TABLE 2.--Changes in credit use for 30 farm supply cooperatives from 1953 to 1957

Association number	Proportion of sales on credit		Days' total sales in year-end accounts receivable		Proportion of assets in year-end accounts receivable		Proportion of year-end accounts receivable over 30 days	
	1953[1]	1957	1953	1957	1953	1957	1953	1957
Cash crop area	*Percent*		*Days*		*Percent*		*Percent*	
1	35	50	8	20	2	3	95	50
2	50	69	([2])	([2])	([2])	([2])	-	-
3	30	40	20	8	2	1	48	23
4	35	45	8	9	2	2	13	60
5	35	39	6	6	5	5	32	50
6	45	53	5	15	6	10	51	46
7	35	59	([3])	10	-	([2])	([3])	([3])
8	35	40	7	9	2	4	86	70
9	15	53	4	7	3	6	66	65
10	55	43	4	10	9	3	76	33
11	66	73	([3])	-4	-	-	72	86
12	52	58	13	14	8	10	55	54
13	38	44	12	17	9	13	69	65
14	43	43	22	12	13	7	84	81
15	([3])	75	1	1	1	1	([3])	([3])
16	30	44	6	12	3	7	69	57
Average	40	52	9	10	5	6	63	57
Diversified farming area								
17	40	60	7	7	14	5	20	31
18	50	57	18	14	27	15	52	57
19	50	68	20	14	11	8	([3])	([3])
20	([3])	64	5	3	5	4	69	48
21	49	54	14	14	14	13	([3])	45
22	([3])	72	14	12	13	15	84	27
23	75	73	11	14	13	11	3	1
24	92	89	15	17	11	12	18	4
25	60	72	12	11	8	6	36	([2])
26	([3])	82	2	8	2	8	23	12
27	([3])	30	25	22	15	13	58	54
28	([3])	([3])	8	9	6	6	([3])	42
29	([3])	72	22	30	20	26	81	71
30	([3])	68	5	4	5	4	61	51
Average	59	[4] 68	13	13	12	10	46	[5] 32
Overall average	46	58	10	11	8	8	55	47

[1] 1953 proportion of sales on credit for associations 1-5, 7-8, and 16-19 are estimates of managers.
[2] Less than .5 percent.
[3] Data not available.
[4] Average of 7 associations.
[5] Average of 11 associations.

According to most measures, the cash crop area did a somewhat better job of controlling credit than the diversified area. In 1957 the cash crop area sold only 52 percent of its supplies on credit while in the diversified area 68 percent of the supplies were sold on credit (table 2).

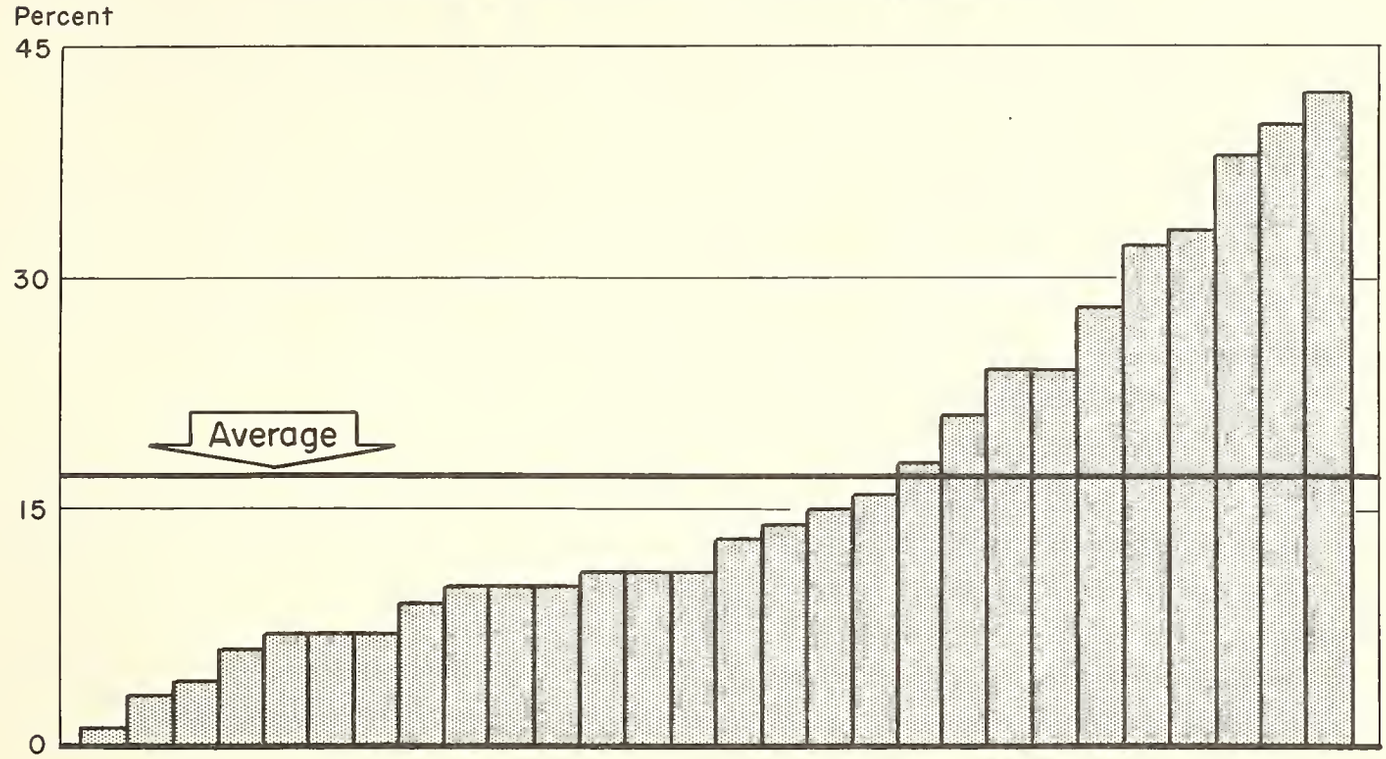
Year-end accounts receivable amounted to only 6 percent of assets in the cash crop area compared to 10 percent in the diversified area. However, accounts were more current in the diversified area. In 1957 only 32 percent of the accounts were more than 30 days old in the diversified section while 57 percent were more than 30 days old in the cash crop area.

The volume of credit business can also be illustrated by the proportion of assets in accounts receivable. In this study average accounts receivable ranged from 1 to 42 percent of year-end assets and averaged 17 percent (figure 3).

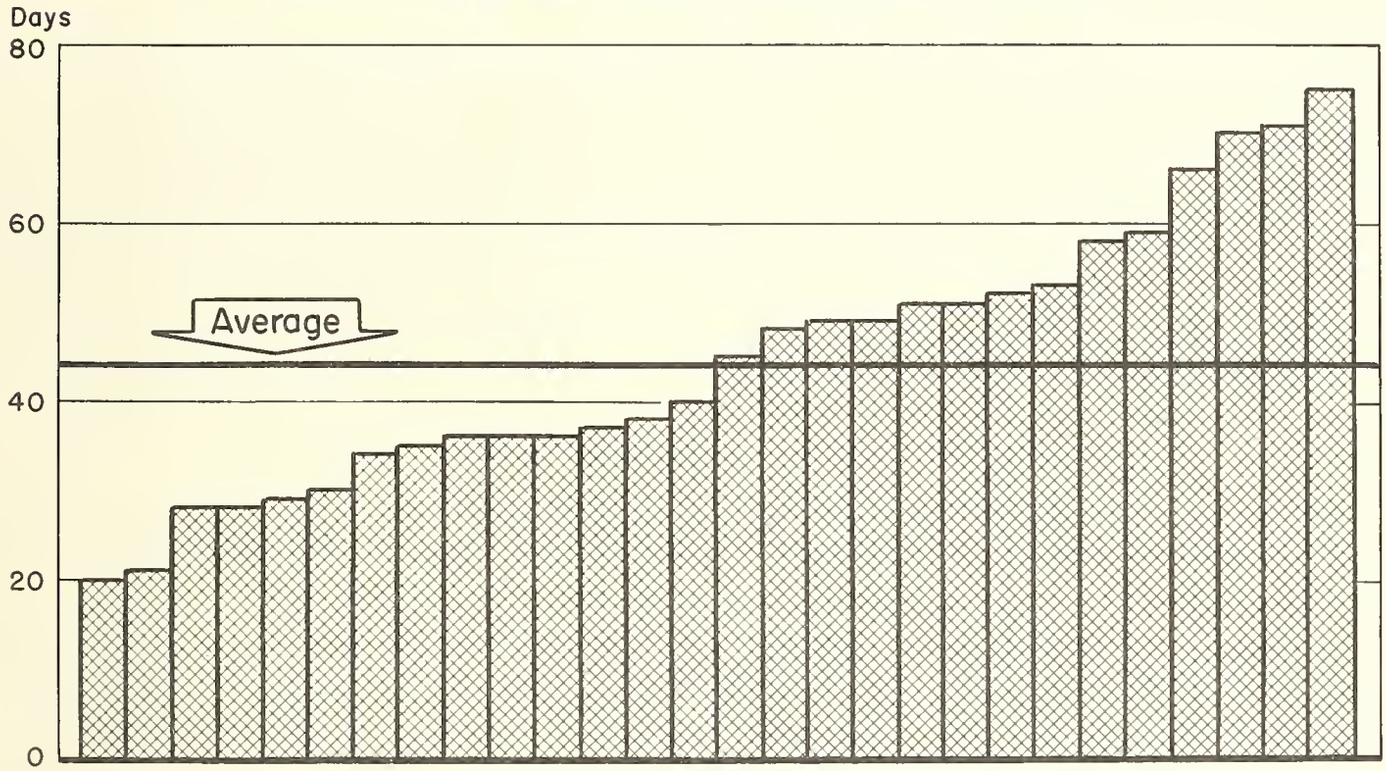
Another good measure of credit control is the age of the accounts receivable. The average age of accounts receivable in the cooperatives studied ranged from 20 to 75 days and averaged 44 days (figure 4).

Figures 3 and 4

PERCENT OF ASSETS IN AVERAGE ACCOUNTS RECEIVABLE 28 FARM SUPPLY COOPERATIVES



AVERAGE LENGTH OF TIME CREDIT WAS EXTENDED IN 28 FARM SUPPLY COOPERATIVES



Farm Supply Cooperatives

If some cooperatives can keep their accounts receivable low and current, those cooperatives which have many old accounts might try to adopt some of the practices used by the cooperatives with good credit control.

According to some measures, credit became more of a problem during the last 5 years. While total supply sales increased only 39 percent, credit sales increased 81 percent. In spite of the increase in credit sales, however, accounts receivable as a proportion of assets remained the same in 1957 as in 1953 at 8 percent. This is partially explained by the fact that accounts were kept more current in 1957 than in 1953.

The increase in credit use is also illustrated by the number of "days of total sales in year-end accounts receivable." This measure is obtained by dividing total retail sales by the number of selling days in a year--300 were used in this study--then dividing accounts receivable by this amount. This measure shows the number of days of total sales uncollected or "on the books." The average days' total sales in year-end accounts receivable were 10 days in 1953 compared with 11 days in 1957. Data were not available on monthly average accounts in 1953, but in 1957 there were 21 days of total sales in average accounts receivable.

"Days' credit sales in year-end accounts receivable" is another ratio and differs from days' total sales in accounts receivable in that it measures the length of time accounts remain uncollected. It is based on 365 days a year rather than the number of selling days. In these associations in 1957 accounts were outstanding for an average of 22 days based on year-end accounts receivable and 44 days based on monthly average accounts receivable. Data were not available on credit sales in 1953.

Comparisons involving the use of monthly average accounts are included in a later section of this report.

Patrons' Use of Credit

More than 90 percent of the patrons used credit at some time during the 1957 fiscal year. One-third of the patrons had outstanding accounts at the close of the 1957 fiscal year.

Though most of the patrons used credit, a large part of the credit problem can be attributed to a few individuals. The 10 largest account holders in each association accounted for an average of only 4 percent of annual purchases (table 3); yet they were responsible for 28 percent of the year-end amount in accounts receivable. The other 96 percent of the purchases accounted for only 72 percent of the accounts receivable. Stated in another way, with the 10 largest account holders, each 1 percent of total purchases resulted in 7 percent of the total accounts receivable; while with the remainder of the patrons each 1 percent of purchases resulted in only 0.75 of 1 percent of the accounts receivable. A dollar of sales was about 9 times as likely to end up in accounts receivable with the 10 largest account holders as with the rest of the patrons of the association.

Monthly Variations in Sales and Accounts Receivable

Sales varied considerably during the year. They ranged from a low of 73 percent of the 12 months' average in February to a high of 128 percent in May (table 4).

Sales in each area varied even more. In the cash crop area, sales were lowest in February at 74 percent of average and rose to a high of 136 percent in July. In the diversified farming area, sales ranged from a low of 72 percent of average in February to a high of 144 percent in April. The low point in both areas was February. It is probable that sales of harvest supplies accounted for the large volume in July in the cash crop area while the sales of seed and fertilizer no doubt accounted for a large part of the April sales in the diversified area.

TABLE 3.--Patrons use of credit in 21 local farm supply cooperatives, 1956-57

Association number	Proportion of patrons with accounts receivable at end of fiscal year	10 largest accounts receivable			Proportion of accounts receivable under 30 days	
		Proportion of total amount of year-end accounts receivable in 10 largest accounts	Proportion of total number of accounts represented by 10 largest accounts	Proportion of total sales made to 10 largest account holders	10 largest accounts	All accounts
			Percent			
Cash crop area						
1	31	44	12	12	27	50
3	11	35	6	(1)	86	77
4	10	14	3	2	41	40
5	31	62	18	6	47	50
6	31	32	11	(1)	33	54
8	29	28	4	(1)	29	30
9	20	23	3	(1)	8	35
10	24	35	8	1	50	67
11	43	37	4	3	0	14
12	31	35	6	5	19	46
13	37	28	3	3	11	35
14	36	25	13	8	42	19
15	14	37	13	1	(1)	(1)
16	(1)	19	2	1	14	43
Average	27	32	8	4	31	43
Diversified farming area						
17	75	27	8	3	55	69
20	5	16	7	1	52	55
23	32	7	1	1	100	99
24	29	22	2	9	96	82
25	42	27	2	3	(1)	64
26	17	24	5	2	88	88
29	67	7	1	1	18	29
Average	38	19	4	3	68	70
Overall average	31	28	6	4	43	52

[1] Data not available.

TABLE 4.--Monthly variation in total sales shown as a percent of 12 months' average in 25 farm supply cooperatives, 1957[1]

Association number	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Range	
													Low	High
Cash crop area														
							Percent							
1	77	65	147	55	107	147	119	112	83	114	80	94	55	147
2	9	65	85	119	134	132	123	136	127	105	95	71	9	136
3	69	75	82	114	133	161	132	100	86	96	76	76	69	161
5	66	77	66	80	128	151	182	154	75	82	64	75	66	182
7	109	101	107	77	65	63	112	144	101	149	87	85	63	149
8	84	60	52	133	141	168	123	112	81	102	53	91	52	168
9	91	76	106	106	95	104	130	129	102	87	90	84	76	130
10	90	81	86	99	136	128	126	102	97	73	94	88	73	136
11	73	74	88	103	116	107	148	108	97	95	104	89	73	148
13	56	59	78	96	127	104	197	135	94	98	101	55	55	197
14	86	70	76	82	120	118	131	130	91	96	103	97	70	131
15	90	83	101	125	118	113	107	90	91	109	88	86	83	125
16	95	74	88	102	106	109	140	138	91	92	80	84	74	140
Average	77	74	89	99	117	123	136	122	94	100	86	83	74	136
Diversified farming area														
18	89	70	89	177	156	106	119	67	92	93	66	74	66	177
19	63	68	120	177	122	108	107	73	85	104	80	93	63	177
20	134	95	137	158	140	85	88	64	65	76	80	78	64	158
21	82	76	112	142	173	114	104	67	86	103	74	67	67	173
22	87	70	138	183	156	102	88	54	72	84	89	78	54	183
23	91	76	113	121	143	92	90	106	101	92	92	83	76	143
24	91	76	176	83	131	117	86	64	117	103	85	73	73	176
25	89	79	142	71	116	101	93	82	103	121	98	106	71	142
26	62	53	81	66	113	168	96	104	139	189	66	63	53	189
28	86	60	127	94	123	125	86	91	95	221	43	50	43	221
29	72	64	102	223	163	123	89	80	73	68	66	76	66	223
30	83	78	117	239	143	96	76	76	72	77	66	77	66	239
Average	86	72	121	144	140	111	94	77	92	111	75	76	72	144
Overall average	81	73	105	121	128	118	116	101	93	105	81	80	73	128

[1] Month underlined indicates fiscal year end.

If accounts are current they should vary closely with sales. This was the case in the cash crop area (figure 5). Accounts receivable in this section rose steadily to a high in July of 137 percent of average and reached a low in December of 69 percent of average (table 5). Sales in the cash crop area were also at a maximum in July. Both sales and accounts receivable decreased gradually the remainder of the year.

In the diversified area, accounts receivable were lowest in December at 55 percent of average. They rose continuously to a high of 138 percent of average in June (figure 5). Sales in this area were greatest in April and declined after that, while accounts continued to rise until June. This indicates that payments were lagging considerably behind purchases.

Year-end Versus Average Accounts Receivable

Most ratios or measures used in evaluating a business are based on year-end data. Using fiscal year-end data as a basis for these measures automatically makes the financial position appear more favorable than is normally the case. This is because most associations make a concentrated effort to reduce accounts and otherwise improve their financial position for the auditors and members at the fiscal year-end. The practice of improving the year-end position over the normal condition is sometimes termed "window dressing."

TABLE 5.--Monthly variation in accounts receivable shown as percent of 12 months' average in 30 local farm supply cooperatives, 1957[1]

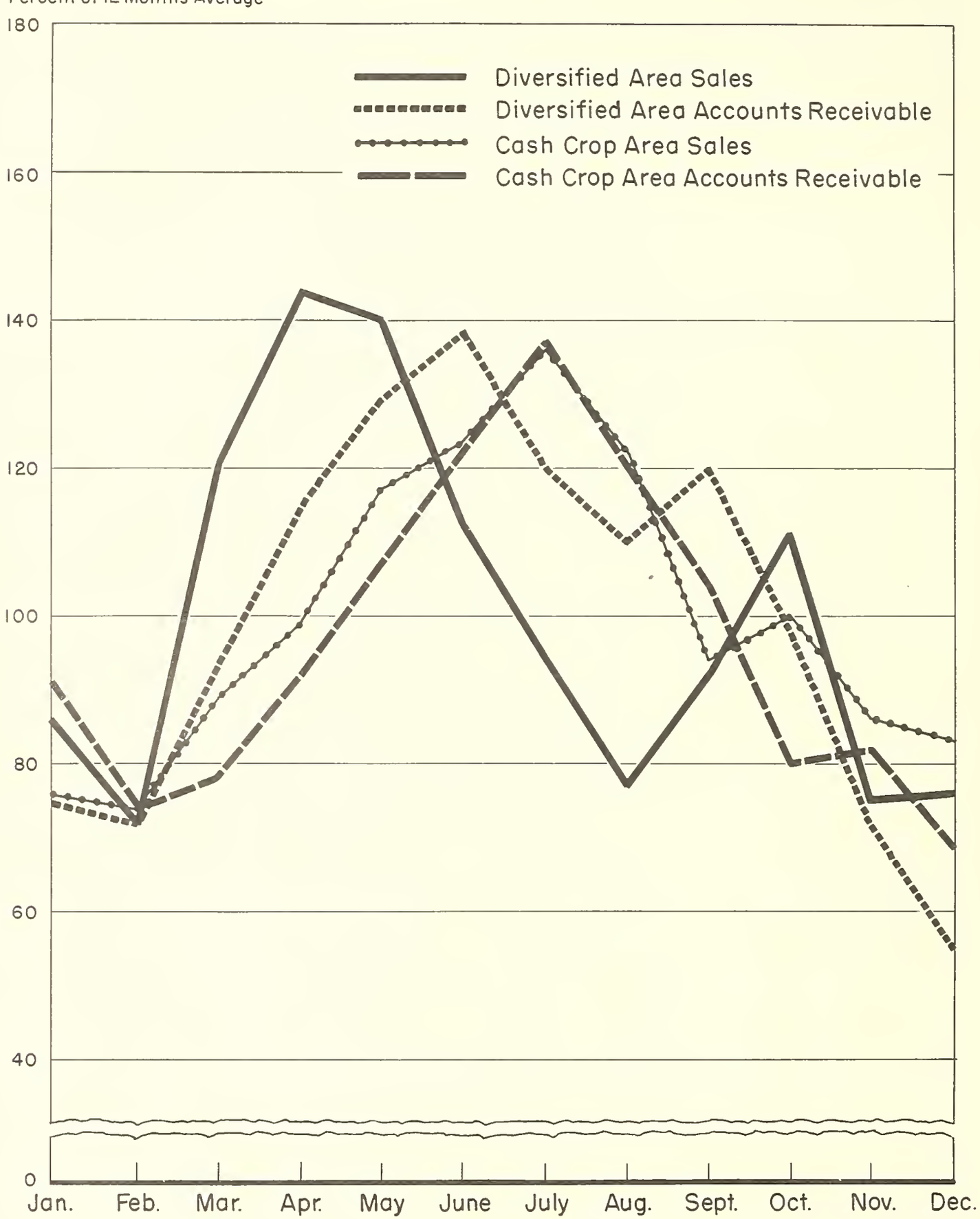
(12 months' average for each association = 100 percent)

Association number	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Range	
													Low	High
Cash crop area							*Percent*							
1	103	95	107	121	91	116	93	103	91	105	91	84	84	121
2	47	36	53	85	111	129	152	153	148	141	145	1	1	153
3	64	81	79	120	139	136	119	86	100	93	107	76	64	139
4	97	71	81	91	106	114	115	104	119	122	126	54	54	126
5	88	77	76	80	137	187	199	51	87	74	68	76	51	199
6	113	103	63	61	85	114	109	104	129	102	117	100	61	129
7	107	114	122	128	122	122	122	142	19	49	58	95	19	128
8	67	75	76	103	124	121	141	142	163	72	62	54	54	163
9	85	88	99	107	108	130	146	119	79	81	81	77	77	146
10	85	84	92	100	117	115	149	117	111	55	97	84	55	149
11	101	30	47	70	94	108	128	122	125	125	137	113	30	137
13	60	62	61	73	86	97	168	160	146	139	96	52	52	168
14	102	95	69	77	83	99	127	128	117	93	110	100	69	128
15	48	59	71	90	114	115	107	121	150	157	161	7	7	161
16	78	76	73	80	93	121	177	148	131	82	78	63	63	177
Average	83	76	78	92	107	122	137	120	114	99	102	69	69	137
Diversified farming area														
18	74	79	83	140	132	134	124	110	111	88	63	62	62	140
19	125	103	101	131	111	105	93	73	89	103	94	72	72	131
20	82	105	105	118	137	124	127	127	118	119	9	29	9	137
21	77	79	87	112	139	130	131	108	111	73	81	72	72	139
22	80	85	106	160	106	121	119	107	105	112	43	56	43	160
23	56	84	82	100	125	149	123	113	114	79	91	84	56	149
24	86	69	122	84	138	140	110	85	109	111	94	52	52	140
25	74	74	105	78	117	115	111	118	126	124	108	50	50	126
26	57	56	76	73	116	190	138	152	190	46	56	49	46	190
28	59	15	97	96	139	181	114	81	145	137	79	57	15	181
29	67	72	82	138	146	138	128	119	112	82	60	56	56	146
30	60	71	85	151	146	127	126	113	106	103	90	22	22	151
Average	75	74	94	115	129	138	120	109	120	98	72	55	55	138
Overall average	79	75	85	103	117	129	129	115	117	99	89	63	63	129

[1] Month underlined indicates fiscal year-end.

Figure 5

MONTHLY VARIATION IN SALES AND ACCOUNTS RECEIVABLE



In evaluating a business on the basis of year-end data, this improved year-end condition must be taken into consideration if an accurate evaluation is to be made.

In these associations year-end accounts amounted to only 57 percent of the average amount in accounts receivable throughout the year (table 6). Using year-end data accounts, 11 days of total sales were tied up in accounts receivable; but when monthly average accounts are used, 21 days' sales were tied up in accounts receivable. Accounts receivable were 8 percent of assets when year-end data were used, but they amounted to 17 percent of assets when based on monthly average accounts.

According to table 5, fiscal year-end accounts for nearly every association were lower than the average of all associations for that month. For example, association 4 ended its fiscal year in December when its accounts were 54 percent of its monthly average accounts; however, for all associations, accounts in December were 63 percent of the year-round monthly average.

TABLE 6.--Year-end[1] and monthly average accounts receivable in relation to total retail sales, credit sales and total assets, 1957

Association number	Days' total sales in accounts receivable		Days' credit sales in accounts receivable		Accounts receivable as a percent of total sales		Accounts receivable as a percent of total assets		Year-end as a percent of monthly average accounts
	Year-end	Average	Year-end	Average	Year-end	Average	Year-end	Average	
	Days		*Days*		*Percent*		*Percent*		*Percent*
Cash crop area									
1	20	17	48	40	7	6	3	3	121
2	(2)	27	(2)	48	(2)	9	(2)	28	1
3	8	10	23	29	3	3	1	1	79
4	9	13	25	35	3	4	2	4	54
5	3	12	9	37	1	4	8	33	24
6	15	15	34	34	5	5	10	10	103
7	10	52	3	75	3	12	(2)	11	19
8	9	12	24	36	3	4	4	6	72
9	7	9	15	20	2	3	5	7	79
10	10	18	28	51	3	6	4	7	55
11	4	14	21	71	4	14	7	24	30
[3] 12	14	(4)	23	(4)	5	(4)	8	(4)	(4)
13	17	19	48	53	6	6	13	14	96
14	12	17	34	49	4	6	7	10	69
15	1	18	2	28	(2)	6	10	13	7
16	12	13	27	36	4	4	6	7	82
Average	10	18	24	43	4	6	6	12	59
Diversified farming area									
17	7	(4)	14	(4)	2	(4)	5	(4)	(4)
18	14	28	29	59	5	9	20	40	50
19	14	20	25	36	5	7	8	11	70
20	3	28	5	52	1	9	4	42	10
21	14	23	19	51	5	8	14	24	61
22	12	30	20	49	4	10	13	32	41
23	14	17	22	28	4	6	12	16	77
24	17	15	22	21	6	5	12	11	108
25	11	22	19	38	4	8	8	15	50
26	8	21	12	30	3	7	8	18	40
[3] 27	22	15	82	58	8	5	13	9	140
28	9	18	23	45	3	6	5	10	51
29	30	42	49	70	10	14	27	38	70
30	4	27	9	66	2	9	3	21	14
Average	12	24	21	45	4	8	11	23	54
Overall average	11	21	23	44	4	7	8	17	57

[1] Year-end accounts from balance sheet.
[2] Less than .5 percent.
[3] Omitted from averages because it was mainly a marketing operation.
[4] Data not available.

In most associations, accounts at the end of the fiscal year-end month were significantly lower than their accounts in the previous month. For example, association 10 at its fiscal year-end had accounts at 55 percent of its year-round monthly average; however, in the preceding month its accounts were 111 percent of average. In other words, accounts were cut in half during the last month of its fiscal year. Association 2 reduced its accounts from 145 percent of average in November to 1 percent of average at its fiscal year-end in December.

If accounts can be reduced so drastically at the year-end, it would seem that they could be controlled better throughout the year if sufficient effort were made. It might be advisable to attempt to reduce accounts twice or four times each year rather than only once. This would permit accounts to build for only 6 months or 3 months instead of a full year and thus keep them from getting as large as they would in 12 months.

Age of Accounts Receivable

Credit in the associations in this study was extended for an average of 44 days. Fifty-three percent or slightly more than half the accounts were less than 30 days old in 1957 (table 7). Twenty-one percent of the accounts were from 30 to 90 days old, 18 percent were 90 days to 1 year old, and 9 percent were more than 1 year old.

Accounts were considerably more current in the diversified section than in the cash crop section. In 1957, 65 percent of the accounts in the diversified section were less than 30 days old while only 43 percent of the accounts in the cash crop section were less than 30 days old.

TABLE 7.--Change in age of year-end accounts receivable from 1953 to 1957, in 24 farm supply cooperatives

Association number	Under 30 days		30-90 days		90 days - 1 year		Over 1 year	
	1953	1957	1953	1957	1953	1957	1953	1957
				Percent				
Cash crop area								
1	5	50	20	10	46	24	29	16
3	51	77	17	23	23	0	9	0
4	87	40	6	39	4	17	3	4
5	68	50	32	38	0	12	0	0
6	49	54	47	20	2	21	2	5
8	14	30	24	49	26	8	36	13
9	34	35	23	25	33	15	10	25
10	24	67	19	19	35	13	22	1
11	28	14	37	26	30	53	5	7
12	45	46	28	24	26	27	1	3
13	31	35	21	24	38	24	10	17
14	16	19	7	13	22	15	55	53
16	31	43	34	20	33	26	2	11
Average	37	43	24	25	24	20	14	12
Diversified farming area								
17	80	69	10	12	10	17	0	2
18	49	43	17	19	7	8	27	30
20	31	52	29	28	34	20	6	0
[1] 21	-	55	-	18	-	27	-	-
22	55	73	15	23	8	4	22	0
23	97	99	1	1	1	0	1	0
24	97	82	1	5	2	11	0	2
25	100	64	0	11	0	24	0	1
26	77	89	11	4	12	6	0	1
29	19	29	20	21	39	35	22	15
30	39	48	23	21	34	28	4	3
Average	64	65	13	15	15	15	8	5
Overall Average	49	53	19	21	20	18	12	9

[1] This association not used in average because accounts not aged in 1953.

Credit may be a useful tool for the farm supply cooperative if it is handled properly and kept current; however, in most associations much of the credit was not current. As credit becomes less current, it becomes more costly and less collectible.

The following illustration shows that as credit is extended for longer periods, the cost per dollar of credit sales increases:[3]

Area	Average number of days credit was extended	Credit cost per $100 credit sales
I	35	$1.70
IV	45	1.74
II	55	2.17
III	60	2.45

The collectibility of an account also declines materially with age. Data compiled by the United States Department of Commerce gives the average value of accounts of various ages as shown in the following schedule:

Age of accounts receivable	Value of $100 of accounts receivable
Less than 30 days	$100
2 months	90
6 months	45
2 years	23

Using this valuation of accounts receivable, the accounts in the associations used in this study would have the following estimated values:

Age of accounts receivable	Amount in accounts receivable	Estimated value of accounts receivable
Less than 30 days	$26,000	$26,000
30 to 90 days	10,500	9,450
90 days to 1 year	9,000	6,030
Over 1 year	4,500	2,025
Total	$50,000	$43,505

The average amount in accounts receivable in these associations was $50,000; however, according to the foregoing estimates only $43,505 or 87 percent of the accounts would be collectible.

These figures illustrate the importance of keeping credit current, and not continuing the extension of credit to those patrons whose accounts are delinquent. If accounts are to remain current, management must know which ones are current and which are not. Therefore, it is essential that accounts be aged each month.

The aging process places accounts in specific age groups. Current accounts are usually less than 30 days old. Less current accounts may be placed in groups 30 to 90 days, 90 to 180 days, 180 days to 1 year, and over 1 year old. Other groupings may be used if they are more convenient.

[3] These data are taken from credit studies conducted by Farmer Cooperative Service in various parts of the United States.

Cost of Handling Credit

The extension of credit involves certain costs which cannot be overlooked. The major items are interest, labor, materials, and bad debt losses. Labor in this study is divided into extending, bookkeeping, and collecting activities.

In 26 associations providing credit cost information, credit costs amounted to 16 percent of the average monthly accounts receivable (table 8). They may seem high but they are not as great as rates charged by leading mail order companies for a wide variety of merchandise sold for farm and home use. One company's carrying charges now range from about 8 to 11 percent of the value of the credit sales and average about 10 percent. On the declining or monthly average balance, however, these rates would be about twice as high, or approximately 20 percent.

Credit costs amounted to 7 percent of the operating expenses of these cooperatives and were equal to nearly one-third of their net margins (table 8).

Credit costs were nearly the same in the cash crop and the diversified sections of this report. Credit cost $1.71 per $100 of credit sales in the diversified section and $1.77 per $100 of credit sales in the cash crop section (table 9). Credit cost $16 per $100 in average accounts receivable in both sections. However, credit costs amounted

TABLE 8.--Credit costs as a percent of average accounts receivable, total sales, credit sales, operating expense and net margins, 26 local farm supply cooperatives, 1957

Association number	Credit costs as a percent of:					Percent of sales on credit
	Average monthly accounts receivable	Total sales	Credit sales	Operating expense	Net margin	
			Percent			
Cash crop area						
1	24	1.3	2.7	10	17	50
3	37	1.2	2.2	4	8	40
4	16	.7	1.6	4	6	45
6	19	.9	1.7	5	30	53
7	11	1.4	2.4	9	65	59
9	10	.6	1.2	3	34	53
10	17	1.1	2.5	6	31	43
11	11	1.6	2.2	11	20	73
12	19	.8	1.4	5	13	58
13	9	.6	1.3	5	8	44
15	10	.6	.8	5	8	75
16	13	.6	1.3	3	69	44
Average	16	1.0	1.8	6	26	53
Diversified farming area						
17	16	.5	.8	3	4	60
18	10	1.0	1.7	9	26	57
19	15	1.0	1.5	6	15	68
20	12	1.2	1.8	10	20	64
21	23	1.8	3.2	12	36	54
22	11	1.1	1.5	8	60	72
23	10	.6	.8	4	9	73
24	24	1.2	1.4	8	25	89
25	20	1.5	2.5	15	92	72
26	25	1.3	1.5	9	21	82
[1] 27	9	.5	1.4	8	22	30
[1] 28	11	.6	1.3	9	14	([1])
29	11	1.2	1.7	8	25	72
30	9	1.4	2.1	11	28	68
Average	16	1.2	1.7	9	30	69
Overall average	16	1.1	1.7	7	28	61

[1] Not used in average because it is primarily a marketing association.

to 9 percent of the operating expenses in the diversified section compared with only 6 percent in the cash crop section.

Credit cost $1.74 for each $100 of credit extended by the 26 reporting cooperatives (table 9). The principal elements making up the credit costs reported in this study were as follows:

Item	Cost per $100 of credit sales	Cost per $100 of monthly average accounts receivable
Interest	$0.65	$5.92
Extension	.12	1.12
Bookkeeping	.52	4.80
Collection	.35	3.20
Bad debts	.10	.96
Total	$1.74	$16.00

Interest was the largest single cost item. It amounted to 37 percent of total credit handling costs (figure 6 and table 9). Interest cost $5.92 for each $100 in monthly average accounts receivable and $1.74 for each $100 of credit sales.

TABLE 9.--Costs of doing a credit business in 26 local farm supply cooperatives, 1957

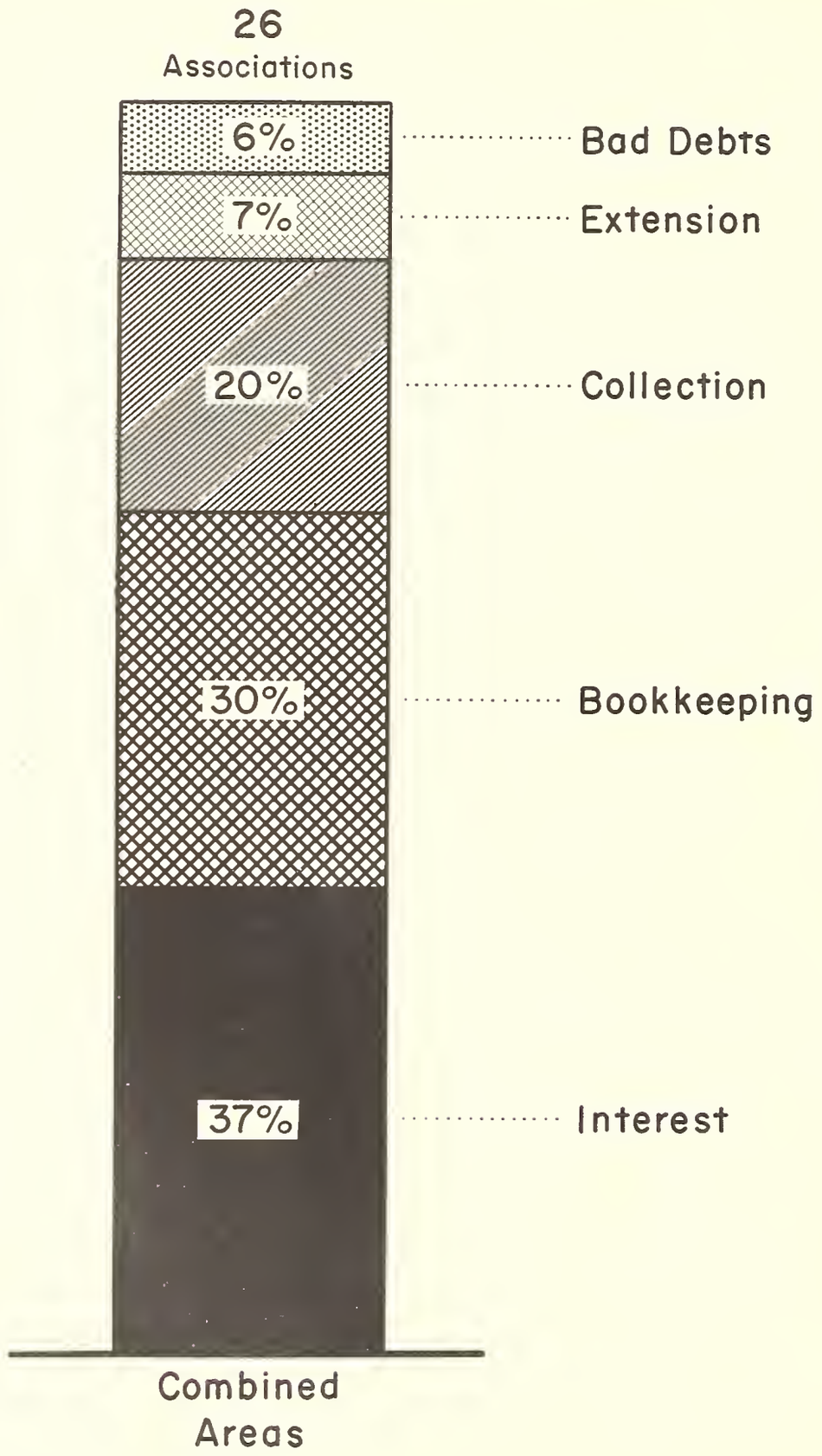
Association number	Accounts receivable monthly average	Costs						Costs for $100 of credit sales
		Total cost	Extension	Interest	Bookkeeping	Collection	Bad debts	
Cash crop area				*Percent*				
1	$5,226	$1,273	7	20	22	35	16	$2.69
3	25,692	9,485	25	14	45	12	4	2.23
4	27,200	4,435	14	30	25	24	7	1.57
6	6,743	1,252	15	27	36	16	6	1.73
7	36,785	4,170	5	44	29	22	(1)	2.37
9	19,486	1,925	2	51	26	18	3	1.19
10	9,092	1,580	3	29	44	12	12	2.46
11	32,156	3,628	1	44	22	14	19	2.22
12	7,400	1,379	(1)	27	45	22	6	1.41
13	39,278	3,599	14	54	24	6	2	1.34
15	30,413	2,934	(1)	52	37	8	3	.76
16	19,689	2,544	12	39	19	12	18	1.28
Average	21,597	3,184	8	36	31	17	8	1.77
Diversified farming area								
17	10,000	1,600	10	31	50	6	3	.82
18	79,689	8,260	(1)	48	33	13	6	1.69
19	90,891	13,795	(1)	33	56	4	7	1.49
20	132,350	16,217	14	41	27	18	(1)	1.79
21	56,048	12,757	8	22	24	44	2	3.24
22	62,587	7,000	4	45	21	16	14	1.53
23	136,760	13,898	5	49	18	28	(1)	.80
24	40,782	10,773	27	19	11	43	(1)	1.38
25	67,801	13,679	2	48	30	17	3	2.54
26	55,887	10,167	1	27	33	37	2	1.53
[2] 27	45,700	4,239	2	60	33	5	(1)	1.45
[2] 28	46,524	4,976	15	47	30	8	(1)	1.25
29	123,358	10,708	4	58	19	15	4	1.69
30	96,364	14,803	2	32	27	34	5	2.05
Average	79,376	11,138	6	38	29	23	4	1.71
Overall average	50,486	7,160	7	37	30	20	6	1.74

[1] None reported.
[2] Not included in averages because it is primarily a marketing association.

Figure 6

CREDIT COSTS IN 26 FARM SUPPLY COOPERATIVES, 1957

(Costs per $100 of Credit Sales)



Bookkeeping cost amounted to 30 percent of total credit costs. This item included the estimated time of the manager and other employees for the additional accounting required to handle credit. It also included the cost of additional accounting materials.

Extension costs amounted to 7 percent of total credit costs. They included charges for the estimated time required to establish a policy, to explain the policy to patrons, to investigate the patron's credit rating, and the cost of opening a credit account.

Collection costs amounted to 20 percent of total credit costs. They included the time spent by the manager and other employees in collecting accounts, postage and stationery needed for collection, travel expenses involved in collecting accounts, and fees paid to professional collectors.

Bad debts loss is often considered one of the major costs of handling credit, but in these associations it amounted to only 6 percent of total credit costs.

Charging for Credit

As mentioned, more than half the associations did not charge for credit in any manner--either by adding interest on accounts or giving a discount for cash. This probably is the primary reason why more than half the patrons did not pay their accounts within the stated credit period.

This failure to abide by the credit agreement resulted in an impairment of capital, increased operating expenses, and reduced net margins of many associations. Not only does this failure to charge for credit result in an expense to the association, but it is grossly unfair to those patrons who pay cash or keep their accounts current. These individuals must help pay the credit cost of the slow paying patrons.

Only five associations indicated that they charged for credit. Three of these said they didn't actually enforce the charge, but hoped that this threat would result in earlier payment of the account.

Three associations charged interest on accounts at the rate of 1 percent per month after the stated credit period. One charged 8 percent per year and another charged 6 percent per year after the stated credit period.

Reasons for not charging for credit were reported as follows: (1) We don't want to compete with local bank; (2) we can't collect the interest charge; (3) it causes ill feelings; (4) farmers are entitled to free credit as a service; (5) charging for credit causes farmers to use more credit; and (6) we never thought of charging for credit.

A monetary incentive is almost essential in obtaining early payment of accounts. A cash discount or a discount for payment within a specific period of time may be more easily administered than an interest charge because it is less difficult to grant a discount than to add an extra charge to the original price.

Nine associations reported giving discounts for cash. One cooperative gave a 2 percent discount on all purchases paid by the 10th of the following month, or purchases put on a production credit association loan during that time. Two gave a cash discount of 1 cent a gallon and another gave a one-half cent a gallon discount on gasoline if paid in 30 days. Two gave discounts of 5 cents per hundredweight on feed if paid in 5 days, and 2 gave a 5 percent discount on fertilizer if paid in 5 days.

Most associations said they could not give cash discounts on petroleum because it would start a "gas war" or they had a cash policy so why give a discount for cash. Other reasons for not giving cash discounts were: (1) It is difficult to decide what should be termed cash; (2) cash discounts cause ill feelings; (3) they involve too much work in additional accounting; and (4) people who would pay cash would do so without a cash discount.

Using Patronage Refunds to Pay Credit Costs

Paying patronage refunds on the basis of cash and credit purchases could serve as a means of charging for credit. Patronage refunds are normally computed on the basis of the total amount of purchases, regardless of whether they are for cash or credit. This means that refunds to credit patrons are too large because they do not reflect credit costs in proportion to cash and credit sales. In associations where 50 percent of the sales are cash and 50 percentare credit, cash patrons pay half the cost of handling credit if no direct charge for credit is made. Such cash patrons should not be required to pay for any part of the credit handling cost.

Charging for credit by deducting its cost from patronage refunds should not antagonize or drive the credit patron away because he pays no more for an item at the time of purchase than if he pays cash. Collecting the charge would also be relatively easy if the co-op realizes reasonable net margins. The cooperative would merely apply patronage refunds against the credit charge of each individual.

There may be various ways in which a credit charge could be taken out of patronage refunds. Here they will be based on the average monthly balance of accounts receivable. This automatically adjusts the charge to the length of time credit is outstanding. It could also be based on the balance at the 5th or 10th of the month when all accounts are due. But if accounts were paid at this time, no charge would be made.

Table 10 shows how the patronage refund is normally distributed and how it could be used to pay the costs of a credit service.

In setting up this schedule certain assumptions have been made.

1. This is a supply co-op with annual sales of $100,000.

2. The cooperative has 10 patrons with purchases for each individual as shown in column 1.

3. A refund of 2 percent of sales, or $2,000, is declared in the normal way (column 2).

4. Had this association not extended "free" credit it could have refunded an additional $1,500 required to handle credit. Therefore, if no credit had been extended the total refund would be $3,500, or 3.5 percent of sales to each patron (column 3).

TABLE 10.--Adjusting patronage refunds to pay for the cost of handling credit

Patron number	(1) Purchases	(2) Normal refund at 2 percent of sales after credit costs are incurred	(3) Refund at 3.5 percent of sales if no credit costs had been incurred	(4) Monthly average accounts receivable	(5) Credit costs	(6) Proposed cash refund after charging for credit
1	$10,000	$200	$350	$1,500	$225	$125
2	10,000	200	350	0	0	350
3	15,000	300	525	2,000	300	225
4	12,000	240	420	1,000	150	270
5	8,000	160	280	500	75	205
6	20,000	400	700	3,000	450	250
7	4,000	80	140	400	60	80
8	6,000	120	210	600	90	120
9	8,000	160	280	800	120	160
10	7,000	140	245	200	30	215
Total	$100,000	$2,000	$3,500	$10,000	$1,500	$2,000

5. This association has monthly average accounts receivable amounting to $10,000. Average accounts receivable is the total of the association's month-end accounts receivable divided by 12. Amounts held by each individual patron are shown in column 4.

6. A charge for credit equivalent to the cost of handling credit at 15 percent of monthly average accounts receivable is used in column 5. This is quite realistic according to credit cost studies conducted by Farmer Cooperative Service in which costs generally ranged from 12 to 18 percent of monthly average accounts receivable.

7. The credit cost finally is subtracted from the refund in column 3, which assumed no credit costs were involved, to give the adjusted refund in column 6.

Following an individual patron through this procedure, we find that patron number 1 bought $10,000 worth of supplies during the year (column 1). His patronage refund under the normal distribution method would be 2 percent of $10,000, or $200 (column 2). Had the cooperative not incurred the cost of extending credit, the refund of the patron would have been 3.5 percent of his purchases, or $350 (column 3). This patron had a monthly average of $1,500 in accounts receivable (column 4). His credit costs, calculated at 15 percent of monthly average accounts receivable, amounted to $225 (column 5).

Subtracting this $225 credit cost from the $350 refund which assumed no credit costs were involved leaves him $125 as a cash refund. Under the normal method of distributing patronage refunds he would receive $200 in cash refunds. Under the proposed system he gets $125.

Patron number 2 who purchased $10,000 of supplies, all for cash, normally would receive 2 percent of $10,000 or $200. Under the proposed system he receives $350. Thus, under this proposed refunding method, patrons using little credit will receive larger cash refunds and those using much credit will receive smaller cash refunds.

Such a plan should enable the manager to vividly point out to a patron the advantages of paying cash to the cooperative. This plan, however, may present the following problems:

1. The cooperative must realize a net margin if this system is to be used, and the patron in question should have a refund sufficiently large to cover his credit costs.

2. If this procedure is to be used it should be explained to the patrons at the beginning of the year and meet with their approval. The policy should be adopted as a bylaw by the patrons to strengthen it. If not adopted as a bylaw by the patrons a statement by the board will be necessary to put this practice into effect.

3. Before adopting such a practice cooperatives might investigate how this plan would affect their status. It should have no effect, however, because it does not change the total amount of refunds. It only distributes them on a more equitable basis.

USE OF CREDIT AGENCIES

Farm supply cooperatives are not an ideal source of credit. Many local lending agencies can extend credit at a much lower cost than such cooperatives. Also many lending agencies are making their lending facilities more convenient for farmers. Farmer cooperatives, therefore, should make every effort to induce farmers to borrow from these agencies rather than to use credit at the cooperative.

Borrowing to Pay Cash

All associations in this study expected a loss in business volume if they were to adopt a cash policy. While this may occur initially, experience of other cooperatives indicate they should be able to rebuild their volume if the costs of credit and the merits

of a cash policy are explained to the patron. If farmers find it profitable to borrow from established credit institutions and pay the cooperative cash, they are likely to do so.

The cost of handling credit at the cooperatives amounted to 16 percent of average monthly accounts in these associations. Farmers could borrow money for considerably less from local lending agencies. Table 11 compares credit costs at the cooperatives in this study with various rates charged by local lending agencies.

Table 11 shows that money could be borrowed for 3 months at 5 percent for less than the cost of handling credit for 1 month at the cooperative. Money could be borrowed for 2 months at 8 percent interest at the same cost as 1 month's credit at the cooperative.

Credit agencies are able to lend money for less than farm supply cooperatives for several reasons:

1. Interest costs--Interest rates paid for money by the local cooperatives are higher than interest rates paid by lending agencies. Cooperatives borrow operating capital from the district banks for cooperatives or other lending agencies at about 6 percent interest; production credit associations (PCA's) borrow from the Federal intermediate credit banks at less than half this cost; and local banks have "interest free" deposits to lend.

2. Costs of extending credit--Credit extension costs are greater for the local cooperatives because credit is extended daily on open accounts in relatively small amounts for short periods. PCA's and banks usually lend money only in sizeable amounts for several months or a year. Many more transactions, therefore, occur per $100 of credit at the cooperatives than at credit agencies.

3. Bookkeeping and collection--These costs are greater at the cooperatives for the same reasons as those listed for credit extension. Also, the accounts at cooperatives usually are unsecured.

4. Bad debt losses--Such losses are greater in the cooperatives because loans are unsecured and often no definite repayment schedule is designated.

5. Specialization--The management and employees of farm supply cooperatives are trained to purchase and distribute farm supplies to patrons, while those of credit agencies are trained to lend money on a sound and efficient basis.

Greater Use of Credit Agencies Possible

Farmers generally did not borrow from credit agencies to pay cash at the cooperative in spite of the fact that in all but three associations patrons were advised to obtain credit elsewhere. The major reason farmers did not borrow elsewhere to pay the cooperative cash is because little or no charge was made by the cooperative for the credit it extended.

TABLE 11.--Cost of borrowing $100 from different sources for varying periods of time

Length of time	Credit costs at co-ops	Credit costs at lending agencies			
		5 percent	6 percent	7 percent	8 percent
1 month	$1.34	$0.42	$0.50	$0.58	$0.67
2 months	2.68	.84	1.00	1.16	1.34
3 months	4.02	1.26	1.50	1.74	2.01
4 months	5.36	1.68	2.00	2.32	2.68

In nine associations credit union facilities were available. Most of these were not used extensively by patrons to obtain funds with which to purchase supplies from the cooperatives; however, one association through its credit union attempted to have all anticipated purchases for the month paid at the beginning of the month. This worked quite well except that not all purchases could be anticipated, and certain individuals set up predeposits and then ran these into a debit balance.

Eight associations had nearby PCA offices and recommended patrons avail themselves of their services. One association recently started converting overdue accounts to PCA loans with the patrons' permission. This cooperative gave a discount on any purchase paid within 30 days or on any purchase converted to a PCA loan during this period. The manager of this cooperative was designated as a PCA loan agent and could extend loans up to $500 to an individual without consulting PCA. The cooperative, however, was required to guarantee payment of the loans to PCA.

Ten associations did not have PCA or credit union facilities available but suggested that patrons borrow from local banks or the Farmers Home Administration.

Managers of 17 associations indicated that they could and should devote more effort to encouraging farmers to obtain production loans from established credit agencies. Four managers thought that organizing a credit union would ease the cooperatives' credit problems. Several associations indicated that charging for credit or enforcing credit policies would get farmers to use other credit sources.

About half the associations indicated that local lending agencies could be more active in making farm production loans. Several managers said the PCA offices were not conveniently located. Other managers said that local lending agencies did not publicize production loans, therefore, many farmers were not aware that these services were available.

One manager did not promote the use of production credit because he thought patrons would borrow money and spend it elsewhere and continue to use their credit at the cooperative, thus merely weakening the cooperative's financial position.

A report just released by Farmer Cooperative Service discusses how farm supply cooperatives can make more use of established credit agencies. It is General Report 52, entitled "How Cooperatives Use Credit Agencies to Meet Patron's Needs." This report should be helpful to cooperative management in getting more patrons to use the lending facilities available to them.

AREA CREDIT COMPARISONS

The following discussion compares credit operations in different areas of the country. These areas were discussed in reports similar to this study. Area I included Michigan, Ohio, Indiana, and Pennsylvania. Area II was composed of Washington, Oregon, Idaho, and Utah. Area III included Minnesota, Wisconsin, North Dakota, South Dakota, and northern Iowa. Area V included Tennessee, Alabama, Arkansas, and Mississippi.

By comparison with other areas, Area IV did quite well in controlling credit. It had a smaller proportion of its total sales and credit sales in year-end accounts receivable than any other area. Area IV had 3.7 percent of its total sales and 6 percent of its credit sales in year-end accounts while the next lowest areas had 4.5 percent of total sales and 6.6 percent of credit sales in year-end accounts (table 12).

Sales in Area IV increased more rapidly than in any area except Area V from 1953 to 1957. Its accounts receivable increased more rapidly than in Area I, but at the same rate as Area III, and less rapidly than in Areas II and V.

TABLE 12.--Comparison of credit control measures in various areas of the United States[1]

Comparison	Areas[2]				
	I	II	III	IV	V
For 5-year period studied[3]					
			Percent		
Increase in farm supply sales	12	20	30	39	45
Increase in accounts receivable	62	92	71	71	85
For last year of study					
Proportion of retail sales on credit	65	68	66	56	55
Percent of total retail sales in accounts receivable at year-end	4.5	7.8	6.3	3.7	6.0
Percent of credit sales in accounts receivable at year-end	6.6	12.0	9.5	6.1	12.4
Proportion of year-end accounts receivable under 30 days of age	47	40	41	54	53
Proportion of assets in accounts receivable at year-end	10	14	10	8	14
Year-end as a percent of monthly average accounts receivable	68	70	64	57	83
			Days		
Number of days' retail sales in accounts receivable at year-end	14	23	19	11	18
Number of days' credit sales in accounts receivable at year-end	25	46	41	22	[4] 42
Number of days' credit sales in monthly average accounts receivable (average length of time credit was extended)	34	55	60	44	44
			Dollars		
Estimated cost of credit per $100 credit sales	1.70	2.27	2.45	1.74	([5])
Estimated cost of credit per $100 of average monthly accounts receivable	16.80	13.30	13.34	16.00	([5])
			Number		
Associations in each study	8	11	22	30	8

[1] Simple averages were used to give approximately equal weight to the performance of each association.
[2] Area I includes Michigan, Ohio, Indiana, and Pennsylvania.
Area II is composed of Washington, Oregon, Idaho, and Utah.
Area III includes Minnesota, Wisconsin, North Dakota, South Dakota and Northern Iowa.
Area IV includes Kansas, Nebraska, Missouri, Iowa, Illinois and Southern Wisconsin.
Area V includes Tennessee, Alabama, Arkansas and Mississippi.
[3] Areas I and II covered period from 1951-52 to 1955-56. Area III covered period from 1952 to 1956 and areas IV and V covered period from 1952-53 to 1956-57.
[4] High because of extreme variation by one association.
[5] Data not available.

Credit was extended for an average of 44 days in Area IV compared to 34 days in Area I, 55 days in Area II, and 60 days in Area III.

Credit per dollar of credit sales cost more than in Area I but less than in Areas II and III. Credit cost as a percent of monthly average accounts was more than in Areas II and III but less than in Area I.

Area IV reduced its accounts at the year-end more than any other area. Accounts at the end of 1957 in Area IV were 57 percent of average compared with 64 percent in Area III, 68 percent in Area I, 70 percent in Area II, and 83 percent of average in Area V.